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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/650,447

08/28/2003

Toshihide Hara

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EXAMINER

FOUD, HICHAM B

ART UNIT

PAPER NUMBER

2619

MAIL DATE

DELIVERY MODE

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PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/650,447	<b>Applicant(s)</b> HARA ET AL.	
	<b>Examiner</b> HICHAM B. FOUD	<b>Art Unit</b> 2619	

**-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --**

**Period for Reply**

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

**Status**

- 1) ☒ Responsive to communication(s) filed on 31 March 2008.
- 2a) ☐ This action is **FINAL**.                      2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

**Disposition of Claims**

- 4) ☒ Claim(s) 1-4 and 6 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-4 and 6 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

**Application Papers**

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

**Priority under 35 U.S.C. § 119**

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All    b) ☐ Some \*    c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

**Attachment(s)**

- |  |   |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892)          | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | Paper No(s)/Mail Date. _____                                      |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)          | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date _____  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Continued Examination Under 37 CFR 1.114***

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114. Applicant's submission filed on 03/31/2008 has been entered.

### ***Response to Amendment***

2. The amendment filed on 03-31-2008 has been entered and considered. Claims 1-4 and 6 are pending in this application. Claim 5 has been canceled. Claim 6 has been added. Claims 1-4 and 6 remain rejected as discussed below.

### ***Specification***

3. The disclosure is objected to because it contains an embedded hyperlink and/or other form of browser-executable code (see page 2 line 13 of the specification). Applicant is required to delete the embedded hyperlink and/or other form of browser-executable code. See MPEP § 608.01.

### ***Claim Rejections - 35 USC § 112***

The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

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4. Claims 4 and 6 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim 4 is vague and indefinite because it depends on claim 1 and recites "A congestion controller at a **transmission side** of the pause frame according to claim 1". However, claim 1 recites different limitation which is "A congestion controller for an Ethernet switch at a **reception side** of the pause frame". This difference of sides (transmission and reception) creates confusion since claim 4 is inconsistent with its independent claim 1. Also, the term "said reception side" in line 7 is vague and unclear because it is not known which part of the reception side is referring to since the side is just space and not a component of the device. Similar problems occur in claim 6.

#### ***Claim Rejections - 35 USC § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 1-4 and 6 are rejected under 35 U.S.C. 103(a) as being unpatentable over Tagore-Brage et al (2002/0172205) in view of Joung et al (6,628,613).

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For claim 1, Tagore-Brage et al discloses a congestion controller for an Ethernet switch at a reception side of a pause frame, comprising a plurality of transmission queues which have different priorities (see Figure 1 element 14 and page 5 paragraph 0097 wherein element 14 is queues with different priorities), a receiving means for receiving a PAUSE frame (see Figure 1 element 18 and page 5 paragraph 0101 wherein the switch receives flow control information), a restriction means for restricting transmission traffic from the transmission queues by the received PAUSE frame (see page 5 paragraph 0102 wherein receiving flow control information causes the transmission to be stopped), wherein the restriction means restricts the transmission traffic from a transmission queue of the lowest priority by the PAUSE frame received at a time other than the PAUSE time (see page 5 paragraph 0103 wherein receiving flow control information causes the transmission of the lowest priority queue to be stopped). Tagore-Brage et al discloses all the subject matter with the exception of explicitly disclosing the PAUSE frame including a parameter field in which a timer value of PAUSE time is set and restricting the transmission traffic from the transmission queue of the higher priority, by the PAUSE frame received during the PAUSE time. However, Joung et al from the same or similar fields of endeavor teaches a PAUSE frame including a parameter field in which a timer value of PAUSE time is set (see column 4 lines 10-20 and 42-53) and that when the congestion still exists, the congested element will send another pause frame within the pause time of the first pause frame to keep stopping the transmission of all packet data (see column 5 line 66 to column 6 line 3). Furthermore, Tagore-Brage et al also

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suggests that if the congestion is maintained, different types of stopping/congestion information (PAUSE frame) may be used such as stopping all or only part of the data traffic (see [0110]). Thus, it would have been obvious to the person of ordinary skill in the art at the time of invention to implement the consecutive pausing frames of the invention of Joung et al in the system of Tagore-Brage et al to control the flow of both high and low priority traffic based on the congestion of different traffic priorities using pause frames.

For claim 2, Tagore-Brage et al discloses a congestion controller for an Ethernet switch comprising: a shaping means for shaping the transmission traffic from the transmission queue by the received PAUSE frame (see Figure 1 element 16; Shaper and [0102] lines 1-2), wherein the shaping means restricts transmission speed of the transmission traffic from the transmission queue of the lowest priority by increasing the shaping degree (see [0102] lines 1-2 and [0103]).

For claim 3, Tagore-Brage et al further discloses a congestion controller in which the restriction of the transmission traffic is performed by providing a gap therein (See [0102], wherein the gap in the transmission traffic is the time between stopping the transmission and the re-initialization of the transmission).

Claims 4 and 6 are rejected as best understood;

For claim 4, Joung et al discloses a congestion controller for an Ethernet switch comprising a transmission queue connected with a sending port to a link (see Figure 1 and column 7 lines 4-5; wherein Ethernet switches are connected

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through ports that create links and include transmission queues), an identifying means for identifying an input port which causes congestion by counting packets resident in the transmission queue, corresponding to the input port (see column 7 lines 19-30, wherein a counter for each input is given as a way for identifying packets and counting them and when a number of counted packets exceeds a threshold, it will send a PAUSE frame), and a transmission means for transmitting the pause frame to said reception side which is connected to the identified input port (see column 7 lines 33-35 wherein a pause frame is transmitted to the switch coupled to the congested port).

For claim 6, Tagore-Brage discloses that the identifying means identifies traffic based on the attributes of the packets (see page 5 paragraph 0103 wherein the identification is based on priority which is either higher or lower priority) and the transmission means notifies the reception side of the identified traffic by the pause frame transmitted thereto (see Fig. 3 and [0110] and [0111]; when the element 24 is congested, it will send a pause frame to the identified reception side which element 26 then 22).

### ***Response to Arguments***

6. Applicant's arguments with respect to the claims have been considered but are moot in view of the new ground(s) of rejection.

### ***Conclusion***

7. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. See PTO-892.

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**8. Examiner's Note:** Examiner has cited particular columns and line numbers in the references applied to the claims above for the convenience of the applicant. Although the specified citations are representative of the teachings of the art and are applied to specific limitations within the individual claim, other passages and figures may apply as well. It is respectfully requested from the applicant in preparing responses, to fully consider the references in entirety as potentially teaching all or part of the claimed invention, as well as the context of the passage as taught by the prior art or disclosed by the Examiner. In the case of amending the claimed invention, Applicant is respectfully requested to indicate the portion(s) of the specification which dictate(s) the structure relied on for proper interpretation and also to verify and ascertain the metes and bounds of the claimed invention.

When responding to this office action, applicants are advised to clearly point out the patentable novelty which they think the claims present in view of the state of the art disclosed by the references cited or the objections made.

Applicants must also show how the amendments avoid such references or objections. See 37C.F.R 1.111(c). In addition, applicants are advised to provide the examiner with the line numbers and pages numbers in the application and/or references cited to assist examiner in locating the appropriate paragraphs.

**9.** Any inquiry concerning this communication or earlier communications from the examiner should be directed to HICHAM B. FOUD whose telephone number is (571)270-1463. The examiner can normally be reached on Monday - Friday 10-6 EST.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Chau T. Nguyen can be reached on 571-272-3126. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Hicham B Foud/  
Examiner, Art Unit 2619  
05/10/2008

/CHAU T. NGUYEN/  
Supervisory Patent Examiner, Art Unit 2619